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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,353	11/01/2001	William R. Kennedy	KDY 9485	5231

321 7590 12/22/2004

SENNIGER POWERS LEAVITT AND ROEDEL
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102

EXAMINER

A, PHI DIEU TRAN

ART UNIT	PAPER NUMBER
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3637

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,353

Applicant(s)

KENNEDY ET AL.

Examiner

Phi D A

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 14 and 31-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 14, 31-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9, 14, 31-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy et al (Re36853) in view of Zen (6481179).

Kennedy et al shows a door leaf/installation (27, 29) mounted on hinges (115, 117), in a door frame (23) for swinging in a doorway of a mine passage (P) on a column (43), the door leaf having at least four edges, the frame directly supporting two of the edges when the door is in the closed position, another two of the edges being substantially free of direct support, the supported edges including an upper edge and a first vertical edge, the free edges being a lower edge and a second vertical edge opposite the first vertical edge, the upper edge is supported by the doorway frame and the vertical edge is supported by at least one hinge mounted to the doorway frame, the door including two door leaves.

Kennedy et al does not show the central core of the door leaf being of solidified composition, outer panels filled with a fire resistant polyurethane foam through which the adhesive foam creates a mechanical coupling of core and panels, frame having top and bottom, and sides, one or more filling holes and rebar-type elements for mechanical coupling of the core.

Zen shows a door leaf/installation of laminated construction, the door having the central core of the door leaf being of solidified composition, outer panels (3) filled with a fire resistant polyurethane foam (col 2 line 22) through which the adhesive foam creates a mechanical

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coupling of core and panels, frame having top (6), bottom (7), and sides (5), one or more filling holes (col 2 line 66 and col 3 line 4) and rebar-type elements (12) for mechanical coupling of the core (4) to the panels.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Kennedy et al's structure to show the central core of the door leaf being of solidified composition, outer panels filled with a fire resistant polyurethane foam through which the adhesive foam creates a mechanical coupling of core and panels, frame having top and bottom, and sides, one or more filling holes and rebar-type elements for mechanical coupling of the core to the panels as taught by Zen since it has been held to be within the skill of a worker in the art to select these well known light weight and strong panels to provide the strength and durability of steel at a very low cost as an obvious matter of engineering design choice.

Response to Arguments

3. Applicant's arguments filed 9/24/04 have been fully considered but they are not persuasive.
4. Applicant states that the modification of Kennedy et al's reference with Zen's teaching does not produce a product that has the strength sufficient to function in a mine door environment as Zen does not teach or suggest a door to be strong enough for use in a mine (page 8 lines 24-26) and thus there is no motivation to combine, examiner respectfully disagrees. First of all, the modification shows all the claimed structural limitations. The structures as modified also functions as a door as both Zen and Kennedy teach door structures. The modification of Kennedy et al's Zen's structures inherently can function as applicant's claimed structures.

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Secondly, the claims do not set forth any specific amount of force or stress the door has to endure. It is unclear what kind of force is to be expected per applicant's claimed language.

Thirdly, the claim language to the mine environment is an intended use limitation, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). The argument is thus moot.

5. With respect to applicant's argument that there is no reason to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so is found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to do so is found in the knowledge generally available to one of ordinary skill in the art. The combination, as pointed out above, would result in a door that is light weight and strong. The door is also providing the strength and durability of steel at a very low cost. The selection of such door construction is thus encouraged as it is cost saving and light. The argument is thus moot.

With respect to applicant's statement to "mechanical coupling", examiner respectfully points out that Zen as indicated above teaches "mechanical coupling". The insulation once dried,

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forms a mechanical coupling with the panels. The claimed language “mechanical coupling” is broad and is interpreted accordingly. The argument is thus moot.

With respect to applicant’s argument to the coupling device being at least one or wire screen or rebar-type elements, examiner respectfully points out that Zen shows the device being rebar-type elements (12) as set forth above. The argument is thus moot.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed; and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phi D A whose telephone number is 703-306-9136. The examiner can normally be reached on Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on 703-308-2486. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phi Dieu Tran A

PA

12/17/04

LANNA MAI
SUPERVISORY PATENT EXAMINER
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